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Case study

A Clinical Case Report on Stevens-Johnson Syndrome (SJS)

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ABSTRACT

Stevens-Johnsons syndrome (SJS) and toxic epidermal necrolysis (TEN) are rare cases of adverse cutaneous reactions that can be associated with the use of sulfasalazine. Clinicians, as well as patients, need to be aware of the signs and symptoms that often precede the appearance of the diffuse exfoliations lesions in an SJS or TEN. The associated symptoms should be marked, and immediate withdrawal of the offending medication should be done when blisters or erosions appear in the course of a drug eruption, as this may improve the prognosis. This report is a case A 65 yrs old female hospitalized for having rashes all over body and peripheries after intake of oral medication for joint pain –ETODOLAC, SULFASALAZINE SR, MONOCEF. The patient medical history shows that she is rheumatoid and finally diagnosed as Toxic Epidermal Necrolysis. The patient was treated with Inj.Hydrocortisone Inj.Tagocid, T.Dolo, Inj.Piptaz.

Keywords: Steven Johnson syndrome, Toxic Epidermal Necrolysis, Severe Cutaneous Adverse Drug Reaction, Sulfasalazine.

1. INTRODUCTION

Stevens-Johnson syndrome (SJS) is an immune-mediated life-threatening cutaneous hypersensitivity skin disorder. It ranges from gentle skin and membrane lesions to a severe, generally fatal general illness poisonous stratum lysis SJS or SJS/TEN overlap and 10 types a spectrum of severe cutaneal adverse reactions (SCAR) that may be differentiated by the degree of skin and membrane involvement. Stevens-Johnson

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Syndrome (SJS), as epidermal detachment of b10% body surface area, and various etiological factors cause it. [1] A review confirmed four highly suspected causative drugs: sulfonamide, Phenobarbital, carbamazepine, and lamotrigine [2]. SJS is a severe life-threatening mucocutaneous syndrome caused by drugs like antimicrobials, antiepileptic, and analgesics they're in the main, however not invariably, caused by medication. Erythema (EM) was antecedently thought of to be a milder style of SJS while not tissue layer involvement; but, the clinical classification outlined by Bastuji-Garin in 1993 separates EM as a clinically and aetiologically distinct disorder and has currently been accepted by the accord. The most severe cases can result in death, and for the others, permanent skin, mucosal or ocular sequelae, which can impair the quality of life in patients. Erythema is typically gentle, with solely a couple of spots, that resolve quickly. A lot of less common however way more severe kind are often serious with the involvement of the secretion membranes within the mouth, the venereal space and on the mucosa. The human leukocyte antigen HLA-B one of the investigation marker for SJS. [1-3] SJS is a severe life-threatening mucocutaneous syndrome caused by drugs like The major causative drugs are antimicrobials, antiepileptic, and NSAIDs.[4] A classification system, based largely on the extent of epidermal detachment and morphology of the skin lesions, aids in differentiating opposite spectrums of the same disease entity 15. This system comprises the following: TEN along with spots, TEN without spots, Overlap Stevens-Johnson syndrome and TEN (SJS-TEN) Drugs with increased risk for SJS/TEN have been classified based on data from the Regis SCAR/ Euro SCAR registry. The high-risk drugs, e.g., epileptic drugs and other sulfonamides derivatives, sulfasalazine, Antiviral, non-steroidal anti-inflammatory drugs (NSAID - oxicam type; e.g., meloxicam).[5, 6]

2. CASE REPORT

A 65 yrs old female was hospitalized on 6 Dec 2016 in manipal hospitals, Vijayawada for having rashes all over body and peripheries after intake of oral medication for joint pain –ETODOLAC, SULFASALAZINE SR, MONOCEF. The patient used other medications like T.Levoflox 500mg, T.Doxyphyllin, T.Dalacin 300mg, and developed diffuse exfoliations lesions all over the body from 4 days and developed fever, and the patient was dehydrated. The patient also developed a bold tongue. The patient had the history of HTN, DM since 5years treated with CCB and HAI and Rheumatoid arthritis, and the patient was presented with oral ulcers, high spikes of fever, dyspnoea, exanthematous wide spread of maculopapular rash involving the trunk and upper and lower limbs. The patient had developed an ulcer over right leg 20 days back. The patient's physical findings include pulse rate: 88/min, respiratory rate: 24/min, BP: 110/70 mm of Hg, SPO2 at room temperature was 98%. Lab data includes Sr.Sodium : 132 L mmol/L , Sr.Chloride : 94 L mmol/L , Total Calcium 6.9 L mg/dl , Total Protein : 4.7 L g/dl , Uric acid : 7.1 H mg/dl. Patient admitted with above complaints and consulted Gastroenterologist and was treated conservatively with Antibiotics, PPI's, Analgesics like Inj. Hydrocortisone 100mg BD, Inj.Tagocid 400mg OD, T.Dolo 600mg TID, Inj.Piptaz 45gm BD and other supportive measures like nasal inhalations which include Duolin and Budecort TID. The patient was also advised to give Inj.Calcium Gluconate 10 cc TID slow over 10 min. Dermatologist opinion took given SJS and treated by Derma dew ointment BD, Closone ointment H/S, T.Levocitrizine OD, T.Ultracet SOS. Dietician advised to take the liquid oral diabetic diet of 1000 k.calories and high protein diet of 50 gm infrequent intervals and extra salt to be added. The patient is discharged with stable condition with a prescription of T.Nofloxacin 400 mg OD, T.Lasilactone 2 tabs OD, T.Omnicortil 40 mg OD followed by 20 mg once a week, T.Montair FX OD, T.Dafron 100 mg BD, T.Glycomet 500 mg BD, T.Repace OD, Syp. Sucral 15ml TID, Syp.Lacsihep 30 ml OD, Syp.Salvia-Z BD**.**

3. DISCUSSION

SJS is an acute, life-threatening skin inflammatory conditions [1], characterized by diffuse exfoliations lesions are also known as Toxic epidermal necrolysis it is a side effect of various drugs, commonly used in general practice for chronic diseases, it includes sulfonamides, antiepileptics, NSAIDs, etc. some of the studies state that the diffuse exfoliation lesions are produced by majorly NSAIDs and Sulfonamides [2- 4]. Primarily identification of skin lesions discontinued the caused medications and followed by supportive and standard treatment guidelines for skin reactions [7, 14] and also closely monitoring the relative parameters, such as electrolyte imbalance, clinical symptoms by the skin lesions.

Fig 1: Exfoliated skin lesion

In this case, the patient was treated by antibiotics; corticosteroids are to controls the exfoliations skin lesions and prevention of disease progression, antihistamines, and analgesics are used for symptomatic therapy — additionally, a patient receiving some of the skin ointments like Derma dew ointment, Closone ointment. The observed regional differences for fluoroquinolones, sulfa drugs and carbamazepine majorly produce the TEN, as described by

SCAR study.5Steroids have been accepted as a treatment option as they suppress the necrolytic process in the skin and internal organs. A study shows that early treatment with corticosteroids reduced morbidity and improved survival in patients of SJS. 9,10 Most of the cases are drug-induced SJS, caused by drugs in regarding half of the cases Infections or combination of infections and medicines have additionally been concerned; With each condition, symptoms generally begin one to three weeks once the initiation of the causative medication.[14,15] The characteristic skin mucosal involvement (exfoliations lesions) of SJS was present in patients. The patient was presented with oral ulcers, high spikes of fever, dyspnoea, xanthomatous wide spread of maculopapular rash involving the trunk and upper and lower limbs 11. In these cases, patients with suspected sulfasalazine elicited SJS, and diffuse exfoliation lesions are according to the literature. The first case, according to P. P. Patel, Is compatible with a caused by drugs. [12, 13] in this case of sulfasalazine induce SJS, despite the presence of a maculopapular rash and vulvar involvement, resulted in a more severe reaction. And also it triggers by some of the antibiotics. The withdrawal of sulfasalazine was followed by the gradual disappearance of lesions and complete recovery without sequelae in both patients.[17] for now, immediate cessation of drugs suspected to cause SJS or TEN remains the most critical measure in clinical practice.

Treatment of Stevens-Johnson syndrome and TEN [13,14]:

• Treatment is supportive; there are no established treatments for SJS. • Discontinue all medications. • Don't give corticosteroids (higher morbidity and mortality). • Treat like a burn patient with aggressive fluids, pain control, aseptic handling, nutritional support, and antibacterial treatment. Prognosis Seven independent risk factors (age, malignancy, tachycardia, body area, and serum level of urea, glucose, and bicarbonate) leading to death constituted the toxic epidermal necrolysis-specific severity-of-illness score. Standardized treatment protocols were associated with a lower mortality rate, and children were thought to have a better prognosis and faster re-epithelization.[7, 16]

4. CONCLUSION

Toxic epidermal necrolysis (diffuse exfoliations lesions) is a severe cutaneous adverse drug reaction (SCAR) associated with high mortality. Patients prescribed with antibiotics and sulfonamides like sulfasalazine, educating them regarding the appropriate use of medications are of utmost importance. It is also advisable to provide a personalized "alert card," with the description of adverse drug reaction, to the patient who suffered from such serious reactions. The patient recovered from the reaction after the specific and symptomatic treatment of the presenting illness

5. REFERENCES

1. Stevens-Johnson Syndrome; Derm IS (Dermatology Information System) http://www.dermis.net/dermisroot/en/30254/diagnose.htm. accessed on 01.05.19.
2. Mockenhaupt M. The current understanding of Stevens-Johnson syndrome and toxic epidermal necrolysis. Expert Rev Clin Immunol 2011; 7:803-13.
3. Valentina Maggini, Niccolò Lombardi, Maria Carmela Lenti, Stefano Masi, Sandra Trapani. A case of pediatric Steven–Johnson Syndrome associated with albuterol consumption, International Immuno pharmacology 2015; 27:154–5.
4. Tremblay L et al., Stevens-Johnson syndrome with sulfasalazine treatment: Report of two cases, Journal of Crohn's and Colitis 2011;5: 457–460
5. Patel, *et al*. Systematic review of Stevens‐Johnson syndrome and toxic epidermal necrolysis, Indian Journal of Dermatology, Venereology, and Leprology 2013;79: 3.
6. Mockenhaupt M, Viboud C, Dunant A, Naldi L, Halevy S, Bouwes Bavinck JN, Sidoroff A, Schneck J, Roujeau JC, Flahault A. Stevens-Johnson syndrome and toxic epidermal necrolysis: assessment of medication risks with emphasis on recently marketed drugs. The EuroSCAR-study. J Invest Dermatol 2008;128:35-44.
7. Sassolas B, Haddad C, Mockenhaupt M, Dunant A, Liss Y, Bork K, Haustein UF, Vieluf D, Roujeau JC, Le Louet H. ALDEN, an algorithm for assessment of drug causality in Stevens-Johnson Syndrome and toxic epidermal necrolysis: comparison with case-control analysis. Clin Pharmacol Ther 2010;88:60-8.
8. Revuz J, Penso D, Roujeau JC, Guillaume JC, Payne CR, et al. Toxic epidermal necrolysis. Clinical findings and prognosis factors in 87 patients. Arch Dermatol 1987; 123: 1160–5.
9. Harr and French: Toxic epidermal necrolysis and Stevens-Johnson syndrome. Orphanet Journal of Rare Diseases 2010; 5: 39.
10. Levi N, Bastuji-Garin S, Mockenhaupt M, Roujeau JC, Flahault A, Kelly JP, Martin E, Kaufman DW, Maison P. Medications as risk factors of Stevens-Johnson syndrome and toxic epidermal necrolysis in children: a pooled analysis. Pediatrics 2009; 123:e297-304.
11. Halevy S, Ghislain PD, Mockenhaupt M, et al.; Allopurinol is the most common cause of Stevens-Johnson syndrome and toxic epidermal necrolysis in Europe and Israel. J Am Acad Dermatol 2008; 58:25-32
12. Patel P P. An analysis of drug-induced Stevens-Johnson syndrome, Indian J Med Res. 2012; 136: 1051–3.
13. https://www.drugs.com/sfx/sulfasalazine-side-effects.html. accessed on 12.06.19.
14. Roujeau JC, et al. Medication use and the risk of Stevens-Johnson syndrome or toxic epidermal necrolysis. N Engl J Med 1995;333:1600-7.
15. Bastuji-Garin S, Rzany B, Stern RS, Shear NH, Naldi L, Roujeau JC. Clinical classification of cases of toxic

epidermal necrolysis, Stevens-Johnson syndrome, and erythema multiforme. Arch Dermatol 1993; 129:92-6.
16. Das S, Roy AK, Biswas I. A six-month prospective study to find out the treatment outcome, prognosis, and offending drugs in toxic epidermal necrolysis from an urban institution in Kolkata. Indian J Dermatol 2013 58:191-3.
17. Garcia-Doval I, LeCleach L, Bocquet H, Otero XL, Roujeau JC. Toxic epidermal necrolysis and Stevens-Johnson syndrome. Does early withdrawal of causative drugs decrease the risk of death? Arch Dermatol 2000;136:323–7.

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